

Food Innovation: PharmaBiome and Roquette Collaborate on the Development of Tailored Fibers

This partnership aims to design brand new nutrition and health ingredients targeting an optimal interaction with gut microbiota to contribute to a healthy diet.

23 March 2023. PharmaBiome and Roquette announced today an agreement to use PharmaBiome's proprietary technology, the NicheMap™. This method allows the screening and the formulation of innovative prebiotic solutions using novel soluble fibers developed by Roquette.

30 grams of fiber a day, essential to nourish the intestinal microbiota and improve well-being

Today, fiber intake is largely below recommendation in many countries, with a foreseeable increase in different health issues such as obesity, cardiovascular diseases, diabetes and intestinal diseases in the coming years. This deficit in fiber intake is currently called the "fiber gap" and means that most people are lacking at least 10 grams of fiber per day in their diet.

Fiber is an important component of a healthy diet for the following reasons:

- promotes digestive health,
- has a prebiotic effect on the gut microbiota,
- reduces the risk of chronic diseases,
- helps control blood sugar levels,
- promotes satiety and weight management.

A partnership that targets an optimal interaction with gut microbiota

The use of different fibers by selective bacteria induces the production of molecules – metabolites – that will impact the host's health. These fibers are qualified as prebiotics. To optimize the health benefits of a fiber, it is essential to understand how gut bacteria use their substrates and what the produced molecules are. Knowing the structural characteristics that make a prebiotic out of a fiber is key to produce new ingredients with specific health properties.

PharmaBiome is a biotech company with a deep understanding of the link between microbiome composition and function. They use their unique predictive microbiome technology NicheMap™, and they have demonstrated strong capabilities to predict the effect of prebiotic fibers on both microbial composition and activity in the human gut.

Roquette aims at helping people to close the fiber gap with fiber ingredients easy to use for complementing consumers' daily diets through fiber enrichment and supplement. Roquette, a global leader in plant-based ingredients, has been working with PharmaBiome since July 2017. The group has previously used and approved the said technology on existing and prototyped fiber ingredients.

Dr. Tomas de Wouters, CEO of PharmaBiome, stated: *"This project is an important milestone in our long-term collaboration with Roquette taking the leap from understanding the effect of fibers to using our insights to develop and optimize fiber products. Our long-standing collaboration with Roquette is a great validation of the biological relevance of our NicheMap™ technology, expanding our understanding of the microbiome and its use in the field of prebiotics."*

Backed by more than 20 years of proprietary scientific evidence in the field of soluble fibers, Roquette has developed the NUTRIOSE® soluble fiber range for several years. These ingredients contribute to

selectively modulate the gut microbiota towards a healthier composition. Several studies have demonstrated the benefits of NUTRIOSE® on blood sugar management, digestive health, satiety and sustained energy release. The overall results show that NUTRIOSE® meets the requirements of the definition of a prebiotic as defined by ISAPP (International Scientific Association for Probiotics and Prebiotics). This partnership will be a key lever to extend the current fiber range.

Dr. Laetitia Guérin-Deremaux, Head of Nutrition and Health R&D at Roquette, said: *“This project with PharmaBiome will allow Roquette to offer new microbiome-targeted fibers with scientifically proven health benefits. We are very pleased by the results of this continued collaboration which reinforces our commitment to delivering plant-based innovative ingredients to the food, nutrition and health sectors.”*

About PharmaBiome

PharmaBiome is a pre-clinical biotech company developing therapeutic consortia using gut bacteria for targeted modification of microbiome composition and activity. PharmaBiome's drug-development platform includes an *in vitro* culture based technology enabling the quantitative understanding of the link between microbiome composition and activity, the NicheMap™. Discover more about Pharmabiome at this [link](#).

About Roquette “Improving well-being by offering the best of nature”

Roquette is a family-owned global leader in plant-based ingredients, a pioneer of plant proteins and a leading provider of pharmaceutical excipients. Founded in 1933, the company currently operates in more than 100 countries, has a turnover of 3.9 billion euros, and employs more than 8,000 people worldwide. Life and nature have been our sources of inspiration for decades. All our raw materials are of natural origin. From them, we develop innovative ingredients for food, nutrition and health markets. Thanks to a constant drive for innovation and a long-term vision, we are committed to improving the well-being of people all over the world. We put sustainable development at the heart of our concerns, while taking care of resources and territories. Discover more about Roquette at this [link](#).

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